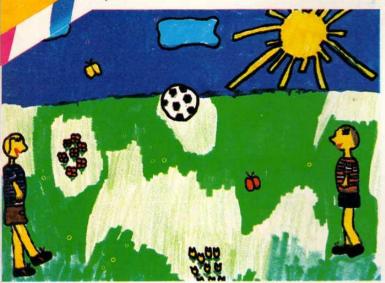




MISHA really enjoys
hearing from you,
boys and girls!

Every day the postman delivers
a pile of letters to the MISHA editorial office.
They contain your requests,
suggestions and drawings.
We are printing four of them today.



I have received your magazine and I like it very much. I am eight years old. Unfortunately I can't read **Misha** because I don't know English, but my Daddy knows it and he translates the magazine for me. I wish **Misha** could speak with me in Persian. I would like to read about children's books in the magazine.



With lots of love, Rabe-eh-Eftekhary, Iran

Together with her drawing and letter Rabe-eh-Eftekhari sent a photograph of herself.

I live in Potsdam. I like the stories and illustrations in Misha very much. I am sending you a picture I have drawn. My drawing may not be very good, but I enjoy doing it a lot. You could organise competitions in your magazine. Your reader Jeanette Mansfeld, GDR



The brother and sister, Charles and Sandrine Kini are from the Republic of the Upper Volta. Sandrine reads *Misha* in French, while little Charles looks at the pictures and listens carefully to his elder sister. This is their request to *Misha*: "Please tell us all about Baba-Yaga, the Black Sea, skating, particularly figure skating, new cartoons, and lots of other interesting things!"



Amaduzzi. Ithe Italian ing Misha says. "I'd li Siberia. An gest stadiu send my dzine?"

MISHA lool

This nice little boy is called Simone Amaduzzi. He is seven and lives in the Italian city of Bologna. "Reading *Misha* is interesting," Simone says. "I'd like to know more about Siberia. And also what is the biggest stadium. By the way, can I send my drawing to the magazing?"

MISHA looks forward to receiving your drawings, Simone!

Misha wants to be friends with children from all different countries.

Misha knows that boys and girls like making up stories, as well as drawings. So we look forward to receiving not only your drawings, but also iddles, puzzles, fairy-tales and stories, including the most fantastic ones.

YOU CAN SUBSCRIBE TO MISHA MAGAZINE through all firms and organisations that have permanent business contacts with Mezhdunarodnaya Kniga.

A. Nekrasov's book "The Adventures of Captain Fibber" has been a favourite with several generations of readers. It has been translated into many languages and published in various countries. It is a story about a jolly captain who decides to sail round the world in his yacht the Pobeda, which means "victory". But right at the beginning of his voyage two letters get lost and the yacht's name turns into Beda, meaning "trouble"! The Beda's voyage is full of amusing adventures. But readers do not believe everything that the narrator, Captain Fibber says, perhaps because of his name. This is what Andrei Nekrasov had to say about how he wrote the book:

"My hero had a prototype. I was working in the Soviet Far East for a whaling trust run by a lively, energetic sailor with a marvellous sense of humour. He often told us how while he was still studying at naval school he and his friends planned to sail round the world in a two-berth yacht. They even worked out their route and did up an old yacht, but the voyage did not take place. Still, the captain made up lots of amusing stories and adventures about it.

"I decided to write his stories down. And I called the hero of my book—jolly Captain Fibber."

"I wish all Misha's readers a happy voyage with my characters!"

TATIANA SHARONOVA

The Adventures of Captain Fibber

Andrei NEKRASOV



Illustrated by Sergei KRAVCHENKO





We had heard that our navigation teacher had a great deal of experience and we expected him to look like this.

But he looked like this instead! We decided he must have got his experience at home, not at





But one day after an exam I had to go to Captain Fibber's home to collect the exercise books, and I got a great surprise.

"Ah, the tropics, the North and South Pole... I used to be crazy about them, until I went to sea." "Did you really go to sea?" "I should say so! Sit down and I'll tell you about it."





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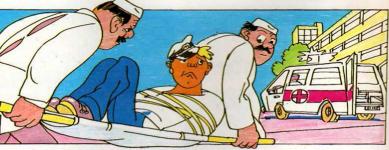
"We had t

the fi

"One day I decided to sail round the world in a yacht. I looked for mate. Crow-bar the Sailor turned out to be just the right sort of chap."

"Only he didn't know English. So I gave him two weeks to learn to speak it.".





"He managed it, but it was a hard job. One day he was studying the letter 'i', sitting in front of the mirror and shouting 'Ai! Ai! Ai!'"

"A neighbour heard him and rang for the ambulance. I had quite a job getting him out of hospital the next day."





"We started looking for a suitable yacht and found just the job. It might have been made to order!"

"It needed a bit of repairing, mind you, but I had new planking and a new mast put in. You should have seen it when it was finished!"







"So no wonder there was a large crowd waiting on the shore with flags and music and all sorts of merry-making."





"I stood at the helm, the sails were hoisted, but the yacht didn't budge. I saw that some decisive action was needed."

"So I called out to a tug that happened to be passing. 'Ahoy, there! Give us a tow!""





"The tug-boat pulled with all its might, but the matter?"

"Suddenly there was a crack, the yacht keeled yacht did not budge. What could be the over, and lost consciousness for a moment..."





"When I came to I saw that the shore looked different. The crowd had disappeared, there were lots of hats floating on the water, and we had a kind of green island on the port side."

"Then I realised what had happened. The carpenters had used fresh timber and, just imagine, over the summer the new planks on the yacht had put down roots in the shore!"

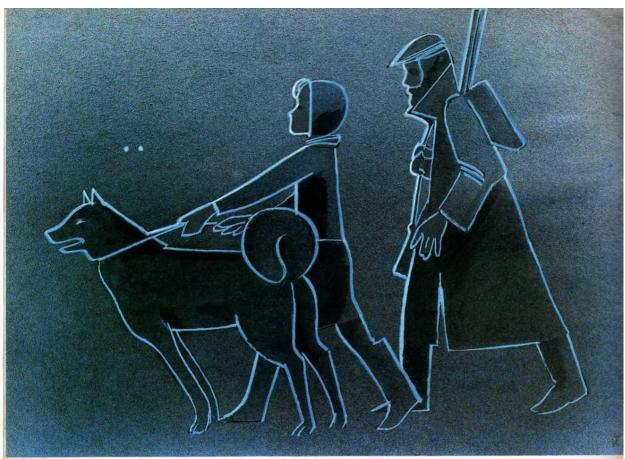




"We had to clean the sides. Or we would have had the fish laughing at us, to say nothing of the fishermen."

"We had lost the name of our yacht in the commotion. Two letters had got broken off. As we sailed away, people shouted after us: 'Safe voyage on the good ship Trouble!"

To be continued



losif DIK

The Green Lights

Tania lives in the taiga at the Petushok mine. Her school is two kilometres away in a large settlement. So she and Shurka walk there and back together each day.

One day the settlement watchman told them that a pack of wolves had appeared in the area. The children did not believe him. Why would wolves come to a place that was so built up?

But one day Shurka did not go home with Tania from school. He said he was going to spend the night in the settlement. And he looked at her to see whether she would be too frightened to go home alone through the forest.

But Tania was a brave girl and set off on her own.

She walked on and on, feeling very frightened.

Suddenly she saw two green lights ahead.

"Wolves!" she thought. She stopped, switched on her torch, and stood like that for about five minutes, her heart beating fast. Then she saw that the green lights had disappeared. She hurried home.

The next day Shurka stayed in the settlement again, saying that he was going to cinema. Tania again set off alone. As soon as she entered the forest she saw something black standing on the path. "It's a wolf again! What shall I do?" She stood rooted to the spot with fright.

Then she shot off like lightning, back to the settlement to ask the watchman for his fiercest dog, Polkan. "You'd best leave the wolves alone and spend the night in the settlement," the watchman said to her. "No, I've got an idea that something funny is going on."

When she and the watchman reached the gully, they saw something dark creep out of the forest again. Was it a wolf or a bear? It moved slowly and heavily. And its eyes were glowing.

"Get it, Polkan!" Tania shouted.

Polkan was off like a shot.

Suddenly the wolf gave a howl of fright and said:

"Hey, Tania! It's me, Shurka! Down Polkan!"

Tania ran up, and it really was Shurka. Round im a cat was racing for dear life, hotly pursued by olkan.

"How did you get here?" Tania asked Shurka.
"I tried to scare you with the cat by pretending to

be a wolf. I wanted to find out if you were a soward."

"Silly ass," said Tania. "You could have thought up something better than that. Wolves, indeed! You won't find a wolf for hundreds of kilometres. Our excavators and bulldozers have frightened them away."

As it was Shurka provided his own punishment. Polkan bit his arm, and he had to have a tetanus



The Oak Tree

Yovka and I decided to plant a tree in our yard. We did not know what sort of tree—a fir, a pine or a birch.

Then Vovka said:

"You know what? Let's plant an oak tree!"

"Why an oak tree?" I asked.

"Because oak trees live for a thousand years!"
"All right!" I agreed.

And off we went to the forest to find an acorn.

ground, and in a thousand years' time there will be a huge oak tree in our yard and everyone will be able to rest in the shade of its leafy branches."

"And will I be hot or cold then?" Fedia Skovorodkin sneered.

"I don't know what you will be then, but I am very happy now!" retorted Vovka. "Are you going to help us?"

"No," said Fedia. "Why should I? Who will remember it a thousand years from now?"

"All right, we'll manage without you," said Vovka and turned to the other boys and girls. "Which of you would like to dig a hole?"

"Me! Me!" they cried.

So Vovka gave the spade to one boy, sent another for water, and told a third to fetch a bottle with a cork and a pen.

When he had the bottle and pen, Vovka wrote on a piece of paper:

"Dear boys and girls of the future! This shady oak tree was planted by us, the children who played in this yard." And we all signed it: Vovka, Petia, Shurka, Katia and I. Then we put the letter in the bottle and buried it beside the little acorn.

But we didn't let Fedia sign it. If he's that sort of person, it's better if no one does remember him a thousand years from now.



Vovka invited all the children who played in our yard to the planting ceremony and made a speech:

"Comrades! As you can see, I have in my hand one small acorn. We shall now plant it in the

Kolka the Tractor Driver

The boys and girls from the third Young Pioneer team were walking in the forest, when they came to a field with a notice saying "Agricultural Experiment Station". On the edge of the field was a tractor, but the tractor driver was nowhere to be seen. So Kolka Ptashkin climbed up and sat down at the wheel. Suddenly the tractor gave a roar and drove off.

"Good for Kolka! Well done!" everyone shouted. But Kolka suddenly howled. "Help! Stop it!"

"You started it, so stop it yourself!" the boys and girls cried.

"But I didn't start it!" Kolka said. "It just set off on its own."

"It couldn't have!" they shouted, running alongside the tractor.

"Honestly it did! Oh, Mum, I'm going to hit a tree!"

But the strange thing was that the tractor suddenly slowed down near the tree on its own, veered right and drove round it.



Then the tractor driver came running up. He had invented a tractor that could run without a driver. He had been sitting on the edge of the field, giving directions to five tractors at once by remote control: starting them, stopping them and ploughing the field.

"'Oh, Mum, help!'" the boys and girls reminded Kolka laughingly.

"But I called Mum on purpose," said Kolka proudly. "I wanted her to see me at the wheel!"

THE STORIES OF IOSIF DIK

When I was little I thought that a writer's study should look like a library. Books lining the walls, piles of papers on the desk, thick curtains at the windows, and people coming in on tiptoe....

losif Dik's study is quite different. There is plenty of sun and light and the most unexpected objects. For example, next to the typewriter there is a vice for carpentry jobs fixed to the desk. And alongside the volumes of poetry on the book-shelves are textbooks on physics and popular science magazines.

The owner of the flat is a well-known Soviet children's writer—and also an indefatigable inventor. One day he worked out how to make a juice extractor from a washing machine, and another time he thought up a clever gadget for a car....

Now he is sitting opposite me, a man getting on in years, whose life has not been an easy one, but whose laugh is as infectious as a young boy's.

"I feel about twenty," the writer said. "And most of my friends are young people too." losif Dik's friends include



many children, the classmates of his eight-year-old daughter Veronika and the children who live in the same block of flats as the writer. Being with them helps losif Dik to write books. The memories of his own childhood also help him.

In the 1930s losif Dik was a dashing drummer in the school orchestra, very keen on French wrestling, basketball and chess. He read adventure books avidly and tried to write himself.

When he grew a little older he decided to become a mining engineer. But the Second World

War interrupted his studies.

losif Dik entered military school, but soon went to the front in the ranks. He fought, dreaming of victory and peace. But one day a serious wound upset all his plans. It looked as though his youthful dreams would come to naught. But losif Dik found the strength to begin life afresh. He entered the Institute of Literature, and wrote his first book while still a student. Other books followed.

Even his friends did not believe that he would ever be able to drive a car. But today losif Dik is a driver with many years of experience. And his daughter imitates him, riding round the yard happily on her bicycle.

The stories and tales by losif Dik are known and loved by millions of Soviet children. He writes for cinema and radio, and his articles appear in the national newspapers and magazines.

Courage helped losif Dik to preserve a child's fresh, hopeful attitude to life, to stay an optimist. And that is why his books are so cheerful and full of courage.

Nina GROZOVA



THE FELT TIPS AND THE CONJURER

The Felt Tip friends were sitting by the ring-side at the circus, drawing the different acts. It was such fun to watch.

A bear rode a motorcycle.

Some dare-devil high-wire acrobats dived about right under the big top like birds.

And as soon as the clown appeared, the audience started laughing although nothing unny had happened yet.

But most of all the Felt Tips liked the conjurer. He performed the most miraculous tricks! He took off his top hat and pulled out a real live rabbit. One touch of his wand and an aquarium appeared on the table. Then he began picking flowers out of thin air and throwing them into the audience.

The audience applauded loudly. The only people who did not clap were the Felt Tips. They were concentrating hard on their

drawing.

"What a serious lot," said the conjurer. "I can't impress you. Perhaps you know some better tricks, do you?"

And he invited the friends into the ring.

"All right, let's have a go," the Felt Tips exchanged glances.

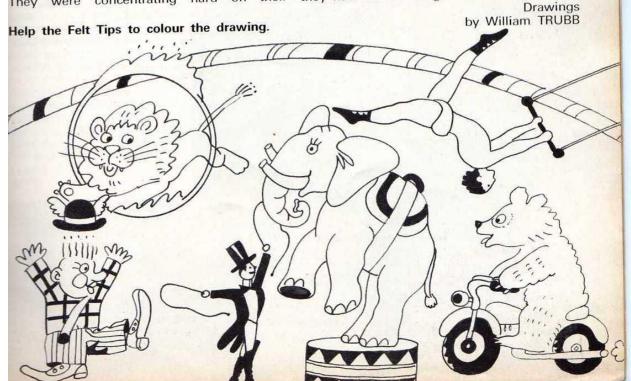
Red Felt Tip drew a carrot and gave it to the rabbit.

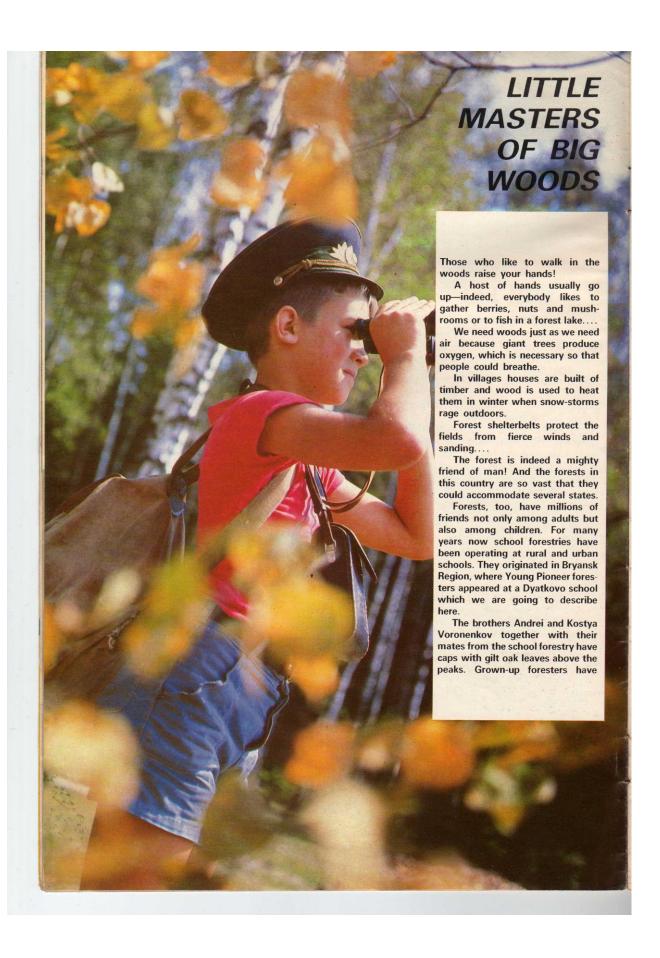
Yellow and Orange sketched a gold fish that wriggled off the paper into the aquarium.

Then all together they drew a big bunch of flowers and presented it to the conjurer.

"This is for you from everyone in the audience for your excellent performance," they said.

The audience clapped louder than ever. And the friends went home to colour the drawings they had made during the show.





similar caps with their uniform, and it was they who taught the children to love the woods, which means to plant a seed and carefully watch the tender seedling grow, then nurse it for several years to see a strong oak-tree or a tall pine or else a slender spruce grow out of it.

All children at the school forestry learn the art of tending forests just as assiduously as they do their classes.

For three years they nurture seedlings in their "little schools" as they affectionately call the young tree plantations.

Young foresters can re-settle a live ant-hill, and the slogging ants will build themselves another shelter at a new place, often two metres high, and set about their useful job so necessary for forests, killing caterpillars and beetles that eat tree leaves.

Young foresters are well-versed in the life of the forest. They can determine the type of a plant by a small seed, and measure trees with a thickness gauge and an altimeter.

They easily cope with forest technology, including all sorts of sowers, cultivators and cone-dryers. Kostya Voronenkov for one can show his knowledge of Latin: it was not for nothing that he was among the winners of the competition of young foresters attended by about 300 schoolchildren from all over the Russian Federation.

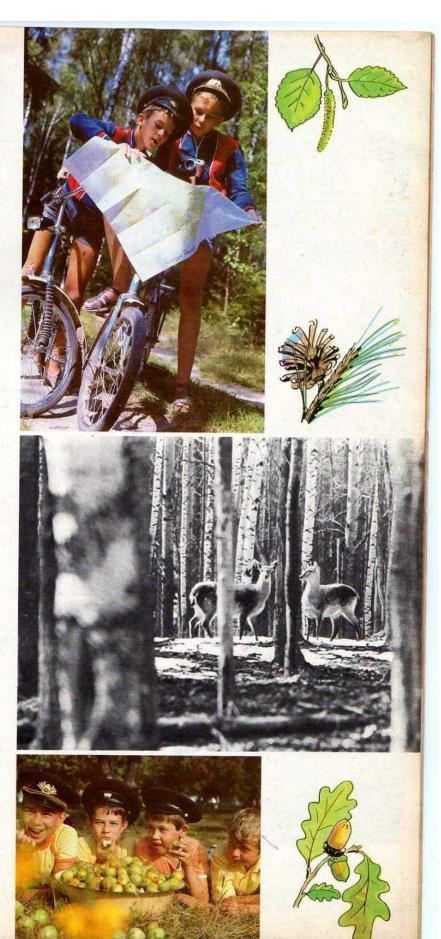
At their school forestry children have to take a special exam called the "biology path". During it children walk together with their instructor along a wood and the forester points at plants in the distance, asking the pupils to name correctly the species.

Perhaps, not all of the Dyatkovo school graduates will become foresters when they grow up. What matters, however, is that they will forever love woods and strive to protect and replenish the forest riches.

Anatoly ZYBIN

Photographs by the author









A MILLION SUNRAYS

Though people failed at first to project light beams, the day came when they devised a searchlight, which made it possible to see things located at a distance. Searchlights are used on trains, ships and planes.

And still the most cunning trap for light was invented a mere twenty or so years ago. It was called the laser.

We are not going to explain in detail how it works: because it's a bit too complicated. What it does in fact is to pump light with the help of an ingenious system of mirrors into a trap. At some point the trap is opened and all the accumulated light rushes forward in what is referred to as a laser beam. It is 100 million times brighter than a pencil of sun rays, more powerful than a thousand furnaces and as straight as an arrow.

A laser beam can melt the most refractory metals or fuse together metal, glass and crystal parts. It is used to measure the distance to the remotest mountain on earth, to the sky and even the most.

It helps ships and planes to navigate in fog and serves as a lodestar in building tunnels through mountains and canals in deserts. Laser is used to perform surgeries.

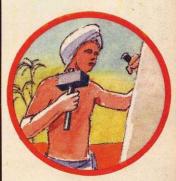
They say we are going to have laser cinema, TV and sound reproduction soon. A description of all the applications of laser may take up the whole of this magazine.

This wonderful device was invented simultaneously by the Soviet scientists Nikolai Basov and Alexandel Prokhorov and the American scientist Charles H. Townes, who were awarded the Nobel Prize for it. As you see, similar inventions, necessary to people, can be made in different countries.

The Most... Biggest... Longest...



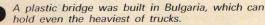
Hen is the most common bird on earth. According to moderate estimates, there are not less than 1,000 million hens on the globe, sparrows rank second.

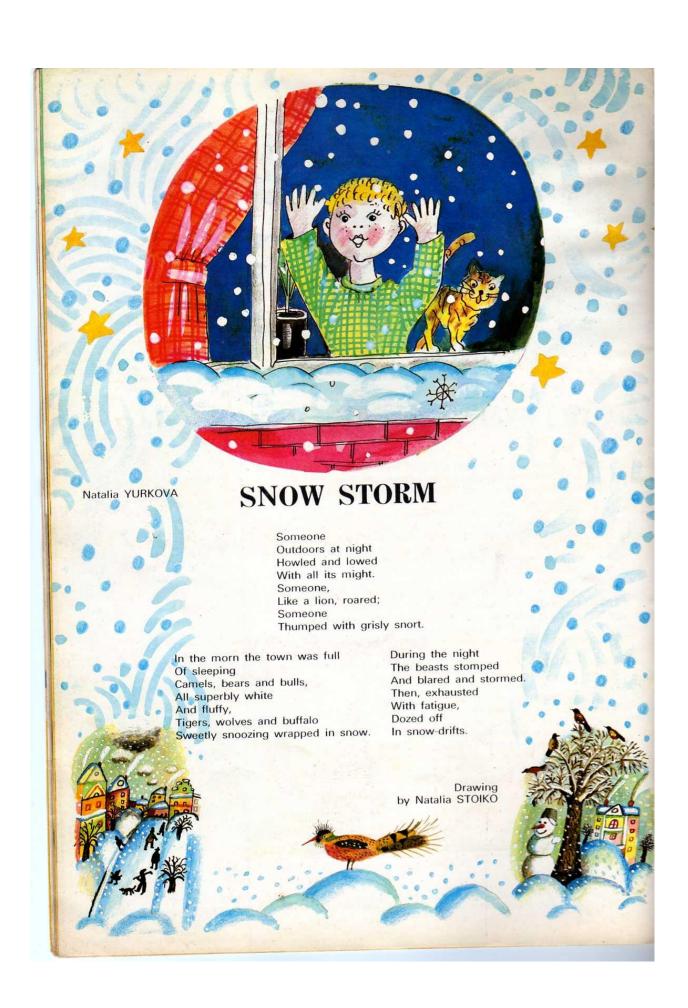


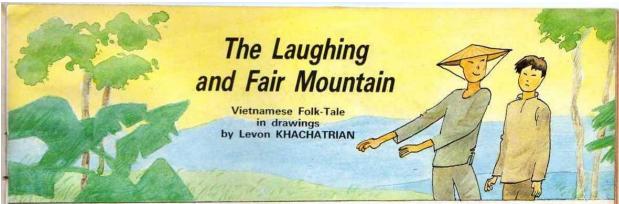
The oldest document on the protection of wild animals was adopted in Burma 800 years ago. The laws were inscribed on a stele.



The noisest tree grows in Guiana and has fruit in the shape of cannon balls hanging from the trunk on thin branches. The balls strike against each other with cannon thunder.







Once upon a time there lived two brothers in a village. After their parents died, the elder brother told his younger brother: "You are young and I have a family to feed. I'll take the house, the cattle and all the rice

fields. And you take the little maize field at the foot of the big mountain together with the old cat and dog." The young lad knew all too well that the younger should respect the elder and silently set out to his field.

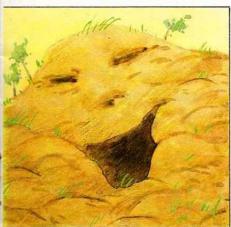




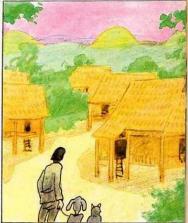


He came to his bit of land at the foot of the big mountain, made himself a tent of reeds and began thinking how he would plough his field. Small as it was, he would not be able to do that on his own. He decided then

to use his old cat and dog. He harnessed them into a plough and started driving them on. The dog yelped loudly and the cat mewed loudly but the plough would not budge.





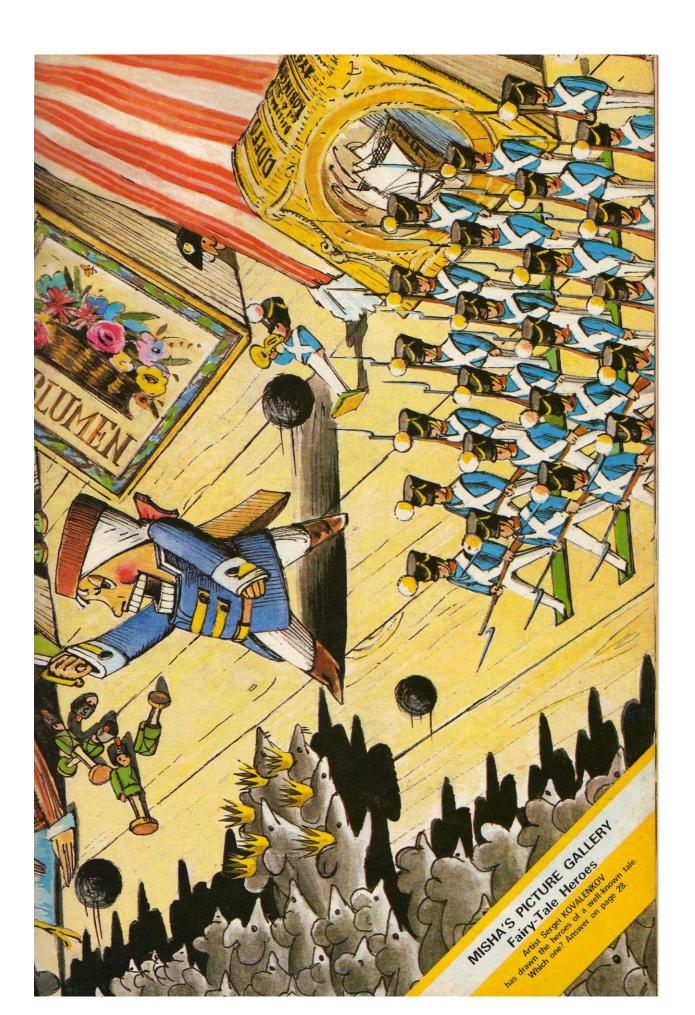


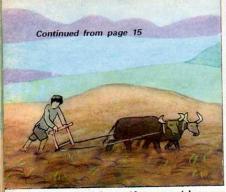
The big mountain saw it all and burst out laughing. Its stone mouth opened widely, and the young lad saw heaps of silver and gold deep inside the dark cave. He entered the cave, took a handful of gold and

stepped outside. The mountain stopped laughing and closed its stone mouth. The younger brother unharnessed his helpmates and together they returned to the village.

Continued on page 18





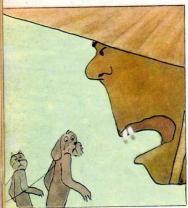






He built himself a good house, bought two buffalos and a big rice field. The elder brother learned about all that and rushed to his younger brother, hurling reproach:

"Why did not you call me when you saw the treasure?" The elder brother took the old cat and dog and went to his place.



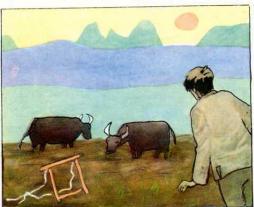


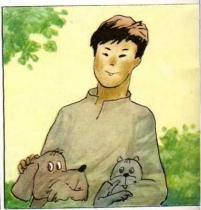


At home he took two big carts with buffalos and hurried, together with his wife, to the foot of the mountain. In the field he harnessed the cat and dog into the plough.

The mountain saw it and burst out laughing. The elder brother did not wait long, ran quickly into the cave followed by his wife and began stuffing gold into bags.







The mountain grew angry to see such greed and shut its stone lips tightly. The cave was again closed. The greedy brother and his wife were trapped inside. In the morning the younger brother came to the

foot of the mountain, saw the carts and understood everything. He found his cat and dog and returned to the village. Ever since that time the people called the mountain the laughing and fair one.













HOW FEDYA CAME TO BE CALLED TOM

A hundred years ago or perhaps even earlier the great American writer Mark Twain (Samuel Clemens) wrote The Adventures of Tom Sawyer, a very funny and clever book. Millions of children and adults have since fallen in love with this kind and brave little dreamer and imp from a small American town. Some adults believe that the book was written about their childhood, while children are sometimes convinced that Tom is still living next door to them and going to the same school. In this country Mark Twain's books have been published in millions of copies in twenty-three languages of Soviet peoples and in English.

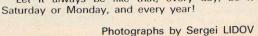
Not long ago Soviet TV viewers saw a film based on Mark Twain's story. Tom Sawyer was played by Moscow pupil Fedya Stukov, and the viewers thought that he was so good in his part that it was difficult to imagine a different Tom.

Look at these photographs. Wouldn't you say that Fedya is as cute, cunning and kind and sometimes melancholy as everyone's favourite Tom?

In his book Mark Twain wrote: "Saturday morning was come and all the summer world was bright and fresh, and brimming with life. There was a song in every heart....

Let it always be like that, every day, be it







THE PARENTS' CLUB

LITTLE CHILDREN MAY FIND IT DIFFICULT AS YET TO DO SOMETHING PERSISTENTLY AND FOR LONG. THEREFORE, IT IS NECESSARY TO ACCUSTOM THEM TO HAVING BREAKS NOW AND THEN.

Leonid PANTELEYEV

SWINGING HIGH, SWINGING LOW

One day Masha and I sat in my study, doing what we had to do. She was preparing for her classes and I was writing a story. I had completed three pages or so, felt a bit tired, stretched myself and yawned several times. It was then that Masha said:

"Oh, daddy! You do it all wrong!..."

I was, of course, taken aback:

"What d'you mean? Anything wrong with my yawning?"

"No, you yawn quite well but you don't know how to stretch."

"Come, come. What is it that I have to know?"

And she showed me what, perhaps, all of you already know. Why, all schoolchildren and pre-schoolers know it. During a class the teacher would announce a brief break and the kids would then stand up and recite in chorus the following:

"When the wind is blowing, blowing Little trees are bowing, bowing. When the weather's warm and fine Little trees are growing high."

At the same time they show with their arms how the wind is blowing and the little trees are bowing and then growing high, reaching out to the sky.

I jolly well liked the exercise and whenever we happened to work together with Masha, we would do it every half hour. But then we grew bored with playing one and the same game and started thinking up different games in a similar vein. Try them. Perhaps, some of you will also like them.

Stand facing each other and clap each other's hands crosswise, reciting in chorus:

"Swinging high, swinging low, We're sitting in a boat, Rowing!."

On the last word show how you pull the oars.

Then go on with:

"Swinging high, swinging low,

We're going to Soho,

Riding on our horse!"

Now show you are riding horseback. Gee-up, gee-up! Whip up your horse but gently—don't hurt it.

If you feel like going on, take up the following lines:

"Swinging high, swinging low,

We're going in a motor,

Whizzing!..."

Our swing is going up in the air and down, up in the air and down. What else can we board? Here is something we haven't tried yet:

> "Swinging high, swinging low, Why not take a flying boat..."

Spread your arms. There you have an aeroplane and can go zoom-zoom-zooming.

A jolly ride we had on our plane but, surely, a spaceship would be even more exciting.

"Swinging high, swinging low,

All the spaceships are now go."

Put your arms over your head, press fingertips together. Bend your knees. Ready for a take-off? Up we go! Watch it—don't break the ceiling or you'll indeed be in space next.

If you stay on earth, however, you can also go sleighing or ride a scooter or anything you can think of. Just take your pick.

Abridged

Photographs by Gennady MAKARYCHEV





Marina POTOTSKAYA

WHAT IS JOY?

No grown-up would jump on one leg with joy or squeal, to say nothing of hurling sand into the air. Though this is, of course, not to say that grown-ups are incapable of enjoying things.

"They rejoice in a manly fashion," a boy said about his father and mother. I think he had a point there

And what gives joy to children? How do they express it and what is joy to them in general?

Below are the answers to these questions offered by some six-year-old philosophers.

"Joy is when everybody is happy. Joys can be big and small. A joy is small when only one man has it, and it is big when it is everybody's joy."

"Dogs wag their tails with joy, cats purr, and people smile...."

"A joy can be quiet or loud. When I am singing loudly, even somehow yelling, it is a loud joy. And mummy would always say that I should keep quiet...."

"I feel a bit hot inside with joy."

"And I once jumped onto a table with joy!"

"I even know that you can fly up to the sky with joy. You only have to be terribly glad for that. I have not yet been that glad."

Grown-ups find it hard to do without joy, while the little ones need it like air! It is not necessary to prepare some special, complex or costly joy for a six-year-old. It will certainly find something to be happy about....

"Good weather gives one joy...."

"And our teacher, can also give us joy!.."

"When I came home after playing in the yard and all the buttons on my coat were in their places, this made mummy and me happy!"

"Daddy allowed me to have a cat. This is a great

"I had a joy last year when a squirrel sat down on my hand!"

My interviewers were talking now, pouring out their big and small joys. It was a wonderful outpouring....

"Everybody feels joy when I have no cold...."

'We have joy when it is a holiday."

"Joy is when nobody cries. Not a single man."

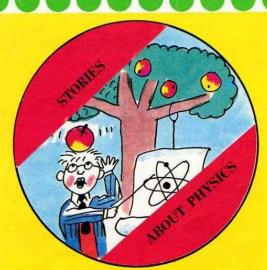
"Joy is when there is no war."

"My granny has a weak heart. When she feels well, we are happy together with her!"

"Joy is when children can do anything they like, except being naughty!"

"I want all children in all nursery schools and in all countries to feel joy!"

"Joy is me because mummy says, 'You are my joy!...'"



Once again we say hello to the characters from Leonid Sikoruk's book "Physics for the Very Young". This time we suggest you read your children the story "Why the Wind Blows" and then set up the following experiment

Open an outside door slightly in cold weather and hold one lighted candle near the opening at the top of the door and another at the bottom. You will see that the flame of the lower candle is directed into the flat and the flame of the upper candle is directed outside. This happens because the warm air inside the flat rises and leaves via the opening at the top of the door whereas the cold air, which is heavier, comes into the room at the bottom of the door. Things are a lot more complicated than this in nature. There are numerous air currents acting simultaneously on the Earth, all affecting one another. The circulation of air currents is made even more complicated by the rotation of the Earth about its axis.



Why the Wind Blows

Leonid SIKORUK

Seryozha was on duty at the holiday camp and, having nothing particular to do, was lying near a tent looking up at the sky. The children had all gone off for walks and apart from Seryozha and two other boys on duty, the camp was empty. Suddenly Seryozha noticed a white spot slowly floating from behind the hill slope. Looking more carefully, he saw that it was a balloon heading straight for the camp. Beneath the balloon was a scrap of paper. Seryozha realised that it was a note, but how was he going to read it? The balloon was just starting to drift away from the camp when Seryozha snatched up a pair of binoculars and began to read. With difficulty he made out the words: "I've sprained my ankle in Mountain Spirits Valley. We're waiting for help. Irina."

"Hey! I've found out where Irina and Tanya are!" shouted Seryozha, and ran to the kitchen where the other children on duty were.

Meanwhile Tanya and Irina were still sitting where they had stopped and were silent. The fire had gone out long ago.

"Look how the air is flowing above the fields," said Tanya suddenly and pointed to the ploughed hillside. And indeed, you could see how the sun-warmed air was rising upwards and making things in the distance shimmer and dance.

"That's hot air rising like smoke from a fire." Irina was silent. Then suddenly she asked:

"If all the air rises, do you get a vacuum?"

Tanya smiled and Irina clapped her hand to her head and burst out laughing.

"If all the air rose we would die. Simply, when heated air rises, cold air flows into its place from all sides. Isn't that right?"

"Yes, and as it does it bends the branches of trees, flutters flags and chases dust."

"Look!" continued Tanya. "Do you see the

What Existed Before...?



to imagine that there was a time when cooks at court could be sentenced to death for revealing the secret recipes for these delicacies.

In days of old Dutch sailors who visited the Cape of Good Hope would always go to the "stone under which letters are put". They would remove the messages left there by other

ships and leave their own. The captains of merchant ships sailing between Britain and the Americas also carried letters.



At one time horses used to pull ore in carts along wooden beams. Later metal strips began to be fixed to the beams, then cast-iron slabs with ruts for wheels appeared and finally, short cast-iron rails. Beams were later placed across the road to form sleepers. Cast-

iron rails were fragile compared to modern ones. Time and time again they broke during the tests of the first locomotive invented by the Englishman, Richard Trevithick.



In order to fasten ships in the past, an anchor stone tied to a hempen rope used to be dropped

Ancient manuscripts relate how Alexander of Macedon was given fruit and juices mixed with ice and snow for dessert. The ice and snow were brought from the mountains specially. In old Russia, on festive occasions pancakes were served with a separate dish of finely crushed frozen sweetened with honey. Nowadays there are so many different types of ice-creams that it is hard

22

higher clouds moving in one direction and the lower ones in the other?"

"Which way is the wind blowing?" said Irina in confusion.

"The sun has heated the air above the fields," explained Tanya. "So it is rising, and the air above the hills is cold, so it is descending. Then this cold air will heat up down below and rise once again, while the cooled air above will once again come down from the hills. A lot of air gathers beside the hills and so it flows over towards the fields."

"That's what happens on the earth but what about up there?" asked Irina.

"Up there the air flows in the other direction, towards the hills. So as we sit on the earth we can see the wind blowing the upper clouds in one direction and the lower ones in the other. It's lovely, isn't it?"

"Yes, very!" replied Irina. She had cheered up a little....

.... The stars were out and it was quiet. Suddenly steps could be heard on the path. It was Seryozha and his friends, and walking beside them was Tanya. In the darkness you could not make out Irina. But if you looked closely you might have spotted that one of the lads was carrying something on his back; not a rucksack, but Irina. She did not see the stars, nor did she hear the footsteps. She was fast asleep.

to the bottom of the sea. This was replaced by an anchor with wooden flukes, and forked projections like legs. To get a firm grip of the seabed a great variety of different anchors were invented. Among them was even one charged with an explosive. When it touched the bottom, the explosion drove the anchor into the ground.



Before buttons there used to be studs. But, of course, various types of

strings, laces and ribbons were more often used. Initially there were far more buttons than buttonholes. This was because buttons out of precious stones and metals were used to decorate clothes. richer and more distinquished the person, the more buttons he had. Many people were even against the introduction of the new fasteners, considering them an impermissible luxury. This was indeed frequently the case. For example, King François I of France ordered his black velvet camisole to be decorated with 13,600 gold buttons.

> Boris ZAITSEV Drawings by Alexander OVCHAROV

Topik and Katya

We called the wild little magpie Katya and the tame little rabbit Topik, and put them into the garden together.

Katya immediately pecked Topik in the eye, and he hit her with his paw. But soon they became great friends and lived happily together, the little bird and the little rabbit. And the two orphans began to learn from one another.

If Topik was cropping the grass, Katya would glance at him and begin to peck at it. Digging in her feet and shaking her head, she would pull with all her little bird's strength. If Topik was digging a hole, Katya would fuss round him, prodding at the ground with her beak to help him.

And when Katya got into a bed of thick wet lettuce for a bath and started fluttering and jumping about, Topik would hobble over to her for a lesson. But he was a lazy pupil because he did not like the damp and he did not like to bathe, and so he would simply start eating the lettuce.

It was Katya who taught Topik to steal wild strawberries from the garden. He would watch her doing it and then start munching on the ripe berries. But we stopped that by chasing them both away with a broom.

Katya and Topik loved to chase each other. For a start, Katya would climb up on Topik's back and begin to hammer at his head and peck behind his ears. When his patience was exhausted, Topik would jump up and try to make off. Hopping with all her might, short wings flapping, Katya would set off after him with a despairing cry. Pandemonium broke loose.

One day, when chasing Topik, Katya suddenly took to the air. That was how Topik taught her to fly. He then learned from her how to jump so far that he was no longer frightened of dogs.

So that was how Topik and Katya lived. They played every day and at night they slept in the vegetable patch, Topik in the dill and Katya in a bed of onions. And they smelt so strongly of dill and onions that the dogs would sneeze just looking at them.

Drawing by Alexander GRASHIN





RIDDLES

Let's Play a Game!

On these pages are some riddles of the various peoples of the USSR, and the artist has drawn the answers to them. Read the riddles at the bottom of the page and guess which goes with which picture.
Write the number of the riddle in the little circle beside the picture answers. You can play on your own but it's more fun with two. Whoever guesses them all first is the winner, that is, of course, if the answers are correct. You can check at the end of the game with the answers on page 29.

- 1. What frowns, scowls, bursts into tears and then disappears? (Byelorussian)
- 2. What two streams follow a man as he goes into the forest? (Karelian)
- 3. You walk and walk but never find the end. (Nagai)
 - 4. Four legs beneath one cloth. (Nenets)
- 5. Who is born with a moustache? (Russian)
- 6. What has neither arms nor legs, but shakes and rocks everyone? (Tajik)
- 7. Don't stand outside or it will drag you home by the nose (Tatar)
- 8. What sings on the way there and cries



on the way back? (Udmurt)

9. What is a heap on a mountain and becomes water in a house? (Ukrainian)
10. Five men in one tent? (Yakut)

1. What moves without legs and swallows without a mouth? (Armenian)

2. It offends no one, but everyone pushes it. (Kazakh)

3. A hill led by a string. (Kalmyk)

4. What comes in the room without opening the door? (Karelian)

5. Thirty-two grind and one turns. (Latvian) 6. What walks across hay and makes no sound, walks across water and does not drown, walks through fire and does not burn? (Lithuanian)

7. It crosses a river without moving from its spot. (Moldavian)

8. What is orange in the dark, and green in the light? (Russian)

9. What has a stone on top, a stone beneath, four legs and a head? (Turkmen)

10. What has teeth but no mouth? (Ukrainian)

Drawings by William TRUBB



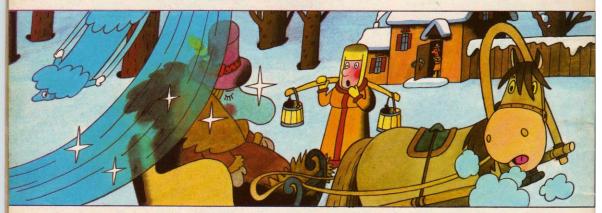
FROST AND LITTLE **FROST**

A Lithuanian Folk-Tale in Pictures by Anatoly VASSILYEV



saying, "is old and cannot work well. But

Old, grey-haired Frost had a young son I'm young and strong and just wait till I get who loved to boast. "My father," he kept going and I'll freeze everyone in no time."



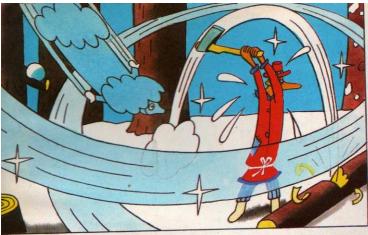
Once Little Frost saw a fat gentleman in a fur coat riding along. "Well," he thought to himself, "the old man won't be able to freeze him, but I'll do it in one go." And he

chased the gentleman all the way and froze him through to the bone, and when the gentleman got home he gave up the ghost.



Little Frost boasted to his father: "I bet, old man, you couldn't freeze such a fat gentleman, and in a fur coat too!" "Well done!"

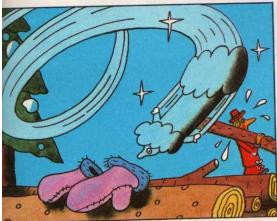
replied the old man. "Now go and freeze that peasant over there, chopping wood."

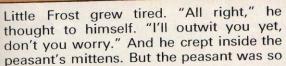




Little Frost thought this was funny. The peasant was just skin and bone and his fur coat was old and tattered. Little Frost flew at him, first creeping up from the side, then

blowing straight in his face. But the peasant kept swinging his axe and wiping the sweat off his brow because he was so hot.







hot that he took them off and threw them onto the log pile. When he had finished chopping wood, the peasant picked up his mittens which had grown hard as ice.

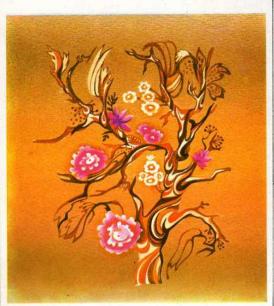




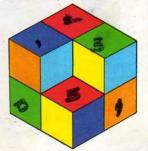
The peasant picked up the axe and began to hit his mittens with the butt to soften them. He hurt Little Frost's side so badly

that he barely made it home. "That will teach you, little fool, to measure your strength against me," laughed Old Frost.





Find the birds hidden in the branches of the tree.



How many cubes make up this shape?



How can you increase the figure 66 by half not using arithmetical sum?

Turn the picture upside (nwob









Invent a story to go with these pictures.

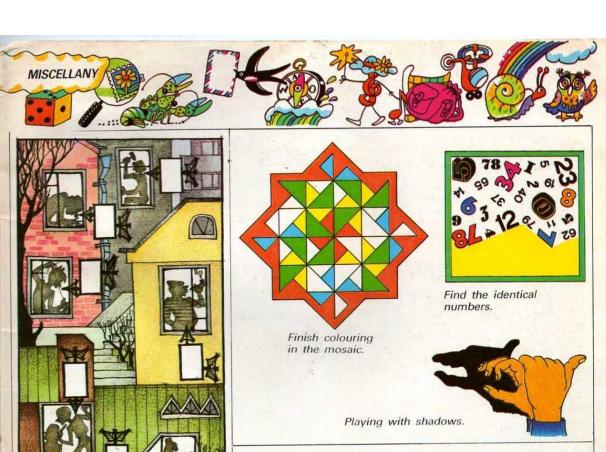
Illustrations by: Larissa BATOGOVA, Andrei DMITRIEV, Valery ZAVYALOV, Natalia LEBEDEVA, Galina MAMINA and Yelena POPOVA

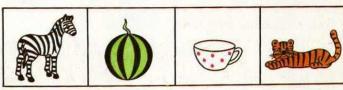
Misha's Gallery (answer)

The New Year celebrations were approaching. The children, Louisa, Fritz and little Marie were given presents. Marie's favourite was a nutcracker in the form of a toy man. It was very good at cracking nuts. Evening came and everyone went off to bed. But Marie stayed behind with the toys. Suddenly with a hiss and a squeak a huge mouse with seven heads appeared from under the floor. It was the Mouse King at the head of his troops, and he was going to attack the little girl. The nutcracker and his toy soldiers defeated the wicked Mouse King. The fairy-tale "The Nutcracker and the Mouse King" was written by the German author Ernst Theodor Amadeus Hoffman

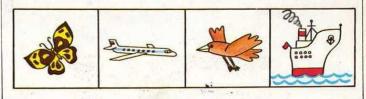


The stamps show footballers, boxers and athletes. Which sport do you like best?

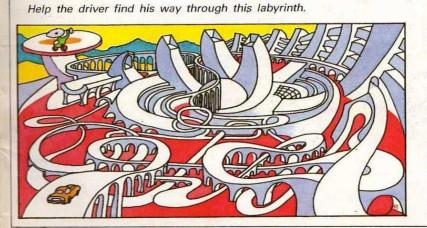




Find the odd picture in each row.



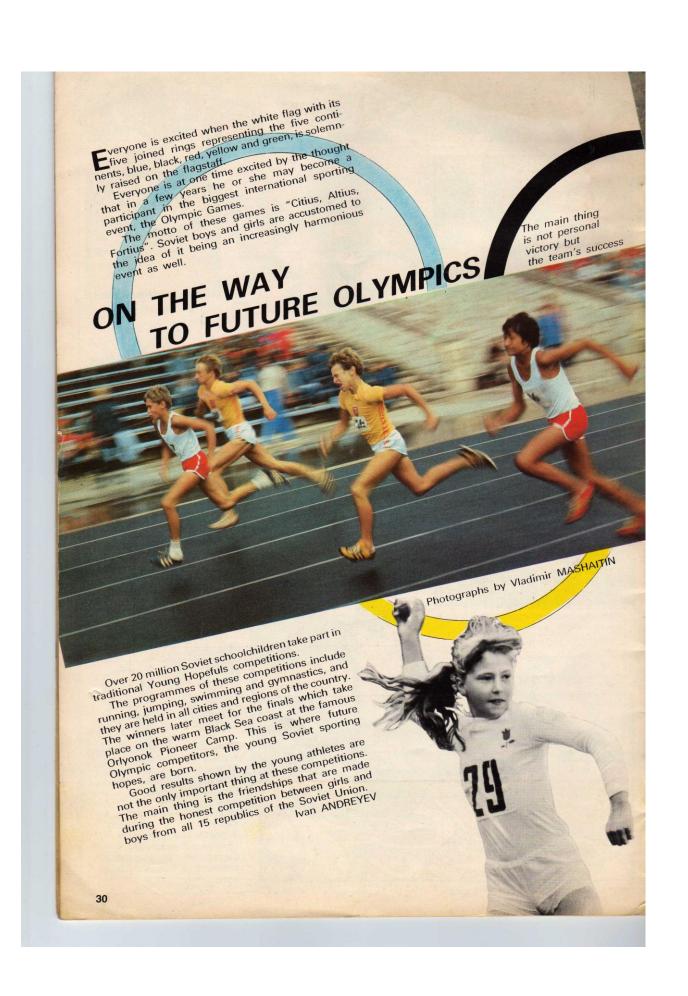
Help the artist to hang up the signs correctly.

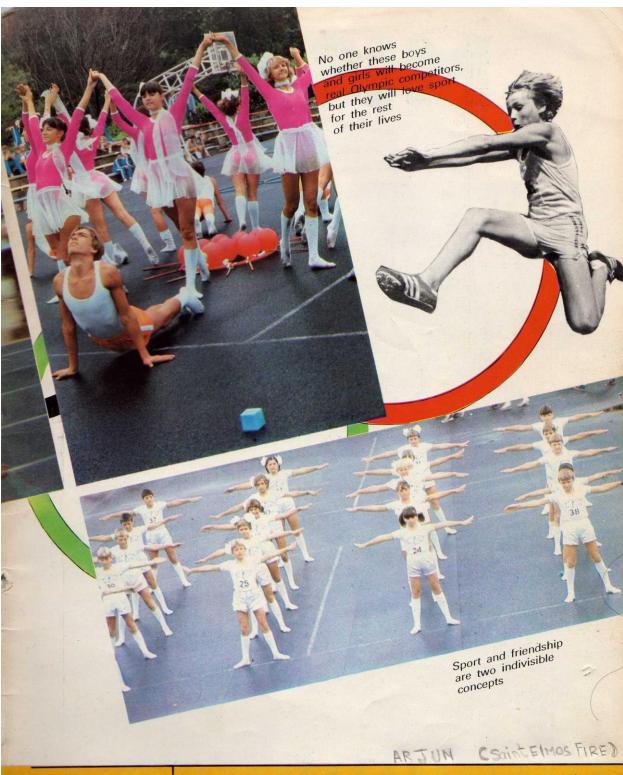


Answers to RIDDLES on page 24-25

1. a cloud; 2. ski-tracks; 3. a road; 4. a table; 5. a cat; 6. the wind; 7. the frost; 8. pails; 9. snow; 10. a hand in a mitten.

1. a river; 2. a door; 3. a camel; 4. a sunbeam; 5. teeth and tongue; 6. a shadow; 7. a bridge; 8. a carrot in a vegetable patch; 9. a tortoise; 10. a saw.





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Photograph by A. ZYBIN "Friends of the Forest".

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